

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>R03343PCT</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>FOR FURTHER ACTION</b> </div> <div>           see Form PCT/ISA/220            as well as, where applicable, item 5 below.         </div> </div>	
International application No. <b>PCT/JP 2004 / 004047</b>	International filing date (day/month/year) <div style="text-align: center;"><b>24.03.2004</b></div>	(Earliest) Priority Date (day/month/year) <div style="text-align: center;"><b>28.03.2003</b></div>
Applicant <b>RICOH COMPANY, LTD.</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (See Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the drawings to be published with the abstract is Figure No. 1

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONALSEARCHREPORT

International application No.

PCT/JP2004/004047

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

Claim 1-9 relates to "the larger the data sequence number, the larger an amount of code data removal, or such that the larger the data sequence number, the smaller the amount of code data removal" while the special technical feature of claim 10 relates to "the larger the data sequence number, the higher a quality of a reproduced image obtained by decoding the generated code data after the removal of code data, or such that the larger the data sequence number, the lower the quality of the reproduced image." to provide "an advantage in that there is no need to decode the codes after truncation according to the JPEG2000 standard for comparison with an image prior to the truncation and to identify proper truncation that minimizes distortion."

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☒

No protest accompanied the payment of additional search fees.

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

An apparatus for compressing an image,  
comprising:

a coding unit configured to generate code data by encoding data  
derived from image data;

a memory unit which stores truncation data items identified by  
respective data sequence numbers, wherein a truncation data item  
specifies a way in which code data is removed from the generated  
code data, such that the larger the data sequence number, the  
higher a quality of a reproduced image obtained by decoding the  
generated code data after the removal of code data, or such that  
the larger the data sequence number, the lower the quality of  
the reproduced image; and

a rate control unit configured to identify a data sequence  
number of a truncation data item that provides a code data  
parameter substantially equal to a desired value, said code  
data parameter being responsive to an amount of code data removal.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 2004/004047

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.<sup>7</sup> H04N1/41, H04N7/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> H04N1/41, H04N7/30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2004, Japanese Registered Utility Model Gazette 1994-2004, Japanese Gazette Containing the Utility Model 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	US 2003/0081847 A1 (Yutaka Sato) 2003.05.01 & JP 2003-101787 A (Ricoh Company, Ltd.)	1-9
PA	Fig 8 Column [0059] Claim 1,4	10
X	EP 1 158 774 A2 (Eastman Kodak Company) 2001.11.28 & JP 2002-64710 A Claim 1	10
X	EP 1 158 773 A2 (Eastman Kodak Company) 2001.11.28 & JP 2002-57903 A Claim 1	10
PA	JP 2004-56605 A (Nihon Hoso Kyokai) 2004.02.19 Family: NONE Claim 1	1-10
A	JP 2003-324612 A (Ricoh Company, Ltd.) 2003.11.14 Family: NONE Claim 1	10
A	JP 8-204970 A (Fuji Xerox Co Ltd) 1996.08.09 Family: NONE Column [0033]	1-10

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

10.06.2004

Date of mailing of the international search report

29.6.2004

Name and mailing address of the ISA/JP

Japan Patent Office

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

Minoru MATSUNAGA

5V

4237

Telephone No. +81-3-3581-1101 Ext. 3571